## Abstract

A method of determining cross channel interference in an Discrete Multitone (DMT) implementation of a Digital Subscriber Line (DSL) system. The cross channel interference is determined utilizing a residual impulse spectrum after implementation of a Time Equalization (TEQ) algorithm. In one application the cross channel interference value is used in a bit allocation algorithm to improve such that more bits are allocated to the channels with low interference and fewer bits are allocated to those channels having high interference. In this application the bit allocation algorithm is run twice, once before the interference measurement and once after.